UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/613,892	07/02/2003	Varadarajan Srinivasan	P198/WLP	6907

25670 7590 05/25/2007	**EXAMINER**
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ART UNIT	PAPER NUMBER
2616	

MAIL DATE	DELIVERY MODE
05/25/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

Office Action Summary	Application No.	Applicant(s)
	10/613,892	SRINIVASAN ET AL.
	Examiner	Art Unit
	Tri H. Phan	2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>02 July 2003</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-24</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) <u>7-12</u> is/are allowed.

6)☒ Claim(s) <u>1-3, 13-18 and 20-23</u> is/are rejected.

7)☐ Claim(s) <u>4-6, 19 and 24</u> is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>02 July 2003</u> is/are: a)☐ accepted or b)☒ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date <u>12/11/06; 3/30/07</u>.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Status

1.   This Office Action is in response to the communication(s) filed on July 2nd, 2003. Claims

1-24 are now pending in the application.

Drawings

2.   This application has been filed with informal drawings, which are acceptable for

examination purposes only. Formal drawings will be required when the application is allowed.

Claim Objections

3.   Claims 3 and 7 are objected to because of the following informalities:

Regarding claim 3, line 2, the word "a" in front of recitation "specified flow ID" should

be correct to -- the -- for clarity.

In claim 7, line 6, the word "a" in front of "instruction decoder" should be correct to -- an

--.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

4.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5.   Claims 1-3 are rejected under 35 U.S.C. 102(e) as being anticipated by **Yazaki et al.** (U.S.7,031,313; hereinafter refer as '**Yazaki**').

- In regard to claim 1, **Yazaki** discloses, *a traffic management processor for selectively terminating individual traffic flows, each including any number of packets* (for example see fig. 5), *comprising:*

a queuing mechanism for queuing the packets for transmission ('input buffer 114' in fig. 5);

means for receiving a termination instruction specifying a traffic flow to be terminated ('packet transfer control unit'; for example see fig. 5; col. 6, lines 16-34); *and*

means for deleting packets belonging to the specified traffic flow from the queuing mechanism ('packet transfer control unit'; for example see fig. 5; col. 6, lines 35-39).

- Regarding claim 2, **Yazaki** further discloses, *a content addressable memory 'CAM' device having a plurality of rows, each for storing a flow identification 'ID' for a corresponding packet, the flow ID indicating which traffic flow the packet belongs to* ('flow entries EN-1 to EN-n' in fig. 7; col. 1, lines 26-33), *and having an input to receive a specified flow ID from the termination instruction* (for example see figs. 6-7; col. 7, lines 50-62).

- In regard to claim 3, **Yazaki** further discloses, *wherein the CAM device is configured to compare a specified flow ID with the packet flow ID's to generate match conditions* (for example see figs. 6-7; col. 7, lines 1-11).

6.   Claims 13-18 and 20-23 are rejected under 35 U.S.C. 102(e) as being anticipated by **Wynne et al.** (U.S.6,959,002; hereinafter refer as 'Wynne').

- Regarding claim 13, **Wynne** discloses, *a method for selectively terminating individual traffic flows* (for example see figs. 3-4), *comprising:*

queuing a plurality of packets, each including a flow identification 'ID' ('flow identification number FIN') *indicating which traffic flow the packet belongs to* (for example see fig. 3; col. 6, line 42 through col. 7, line 7);

receiving a termination instruction ('DISCARD signal') *specifying a traffic flow to be terminated* (for example see figs. 3-4; col. 7, lines 8-19);

determining whether the queued packets belong to the traffic flow specified by the termination instruction (for example see col. 7, lines 14-19; col. 8, lines 44-61); *and*

selectively deleting the queued packets in response to the determining (for example see col. 7, lines 14-19; col. 8, lines 44-61).

- In regard to claim 14, **Wynne** further discloses,

comparing a specified flow ID ('flow queue FQ identification number') *with the flow ID's of the queued packets* (for example see fig. 4; col. 7, line 61 through col. 8, line 9).

- Regarding claim 15, **Wynne** further discloses,

asserting a termination bit ('valid/invalid FIN') *corresponding to each packet that*

belongs to the traffic flow specified by the termination instruction (for example see fig. 3; col. 7,

lines 8-19).

- In regard to claim 20, **Wynne** discloses, *a method for selectively terminating individual*

traffic flows (for example see figs. 3-4) *comprises*

queuing a plurality of packets , each including a flow identification 'ID' ('flow

identification number FIN') *indicating which traffic flow the packet belongs to* (for example see

fig. 3; col. 6, line 42 through col. 7, line 7);

receiving a termination instruction ('DISCARD signal') *indicating which traffic flow is*

to be deleted (for example see figs. 3-4; col. 7, lines 8-19);

comparing a specified flow ID ('flow queue identification number FQ') *with the flow ID's*

of the queued packets to generate match conditions (for example see fig. 4; col. 7, line 61

through col. 8, line 9);

selectively asserting a termination bit ('valid/invalid FIN') *for each queued packet in*

response to the match conditions (for example see fig. 3; col. 7, lines 8-19); *and*

selectively deleting the queued packets in response to the termination bits (for example

see col. 7, lines 8-19; col. 8, lines 44-61).

- Regarding claims 16 and 21, **Wynne** further discloses,

generating a next free address for queuing incoming packets in response to the

termination bits ('free list'; for example see col. 7, lines 8-16, 33-35).

- In regard to claims 17 and 22, **Wynne** further discloses,

wherein the termination instruction further specifies which types of traffic are to be

terminated (for example see col. 7, lines 16-19; col. 8, lines 44-61; wherein the defined class of

service is assigned for each flow as disclosed in col. 6, lines 42-50).

- Regarding claims 18 and 23, **Wynne** further discloses,

ascertaining whether the queued packets are of the traffic type specified by the

termination instruction and selectively deleting the queued packets in response to the

ascertaining (for example see col. 7, lines 14-19; col. 8, lines 44-61).

Allowable Subject Matter

7.   Claims 4-6, 19 and 24 are objected to as being dependent upon a rejected base claim, but

would be allowable if rewritten in independent form including all of the limitations of the base

claim and any intervening claims.

8.   Claims 7-12 are allowed. The following is an examiner's statement of reasons for

allowance:

Substantially regarding claim 7, the prior art of record fails to disclose the traffic

management processor, which comprises the departure time table, the instruction decoder and

especially the content addressable memory 'CAM' device for storing flow identification 'ID'

indicating which traffic flow the packet belongs to and the termination bit indicating whether the

corresponding packet is to be deleted from the queue.

Any comments considered necessary by applicant must be submitted no later than the

payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for

Allowance."

Conclusion

9.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure.

Mittal et al. (U.S.7,035,212), **Lee et al.** (U.S.2003/0156586) and **Narad et al.**

(U.S.6,157,955) are all cited to show devices and methods for improving packet processing

process in telecommunication architectures, which are considered pertinent to the claimed

invention.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Tri H. Phan, whose telephone number is (571) 272-3074. The

examiner can normally be reached on M-F (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Chi H. Pham can be reached on (571) 272-3179.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(571) 273-8300

Hand-delivered responses should be brought to Randolph Building, 401 Dulany Street, Alexandria, VA 22314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office, whose telephone number is (571) 272-2600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CHI PHAM
SUPERVISORY PATENT EXAMINER 5/18/07

Tri H. Phan
May 17, 2007